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A.   Formal Matters

For the record, Applicants object to the Examiner's characterization of the now cited prior art (i.e., the Anritsu '031 application, the Ortiz patent and the Hillis patent) as being "newly discovered." Each of these prior art references was called to the Examiner's attention in Applicants' November 30, 1998 "Information Disclosure Statement." For the Examiner's convenience, the pertinent disclosure in each of these prior art references was also summarized in the same Information Disclosure Statement. When indicating the allowability of Applicants' claims 1-12, 14, 16 and 18-28 over the prior art in the February 17, 1999 Office Action, the Examiner explicitly noted that each of these prior art references had been considered by placing the Examiner's initials next to each of these references on Applicants' Form PTO-1449. The only thing "new" that has happened with respect to these references since the February 17, 1999 Office Action is the voluminous "Protest" filed by Applicants' competitor, Topp Telecom, which refers to two of these references.

For the reasons explained in Applicants' "Response To Protest" and this Amendment, Applicants respectfully submit that the Examiner was correct in his February 17, 1999 determination of allowability and should not have been swayed by the misleading arguments presented by Topp Telecom's lawyers. As noted in MPEP § 706.04, "A claim noted as allowable shall thereafter be rejected only after the proposed rejection has been submitted to the primary examiner for consideration of all the facts and approval of the proposed action. *Great care should be exercised in authorizing such a rejection...*" (emphasis added). For these same reasons, Applicants object to the Examiner's designation of the February 18, 2000 "Office Action" as being "final" since the new rejections were not based on any changes to Applicants' claims 1-28 nor were they based upon any Information Disclosure Statement art submitted by Applicant after the February 17, 1999 Office Action. MPEP 706.07(a).

With respect to the issue of ownership, Applicants' confirm the Examiner's understanding that the claim subject matter was commonly owned by assignee Telemac at the time the inventions were made.

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B. Prior Art Rejections

    1. The Invention

        Applicants have invented a debit telephone system wherein each telephone in the system has a debit account programmed into the telephone's memory with a record of prepaid funds, accounting software is programmed into the telephone's memory to calculate call charges for selected categories of phone calls, such as local, long distance, roaming and international, and there is a remotely accessible system provider host processor which, during direct communications with the telephone or its user, can exchange telephone unit identification information and corresponding operating codes to make or keep each telephone unit active.

    2. The Cited Art Distinguished

        Claims 1-12, 14, 16, 18-49 and 57-75 have been rejected under 35 U.S.C. § 103(a) as being "obvious" over Anritsu's '031 Japanese Patent Application ("Anritsu '031 application") in view of the Ortiz et al. patent, presumably Ortiz's U.S. Patent No. 5,361,297 ("Ortiz patent"). Claims 50-56 have been rejected under 35 U.S.C. § 103(a) as being "obvious" over the Anritsu '031 application in view of Hillis' U.S. Patent No. 5,303,297 ("Hillis patent").

        As previously noted, the disclosures of the Anritsu '031 application, Ortiz patent and Hillis patent were summarized in Applicants' November 30, 1998 Information Disclosure Statement at pages 11, 13 and 15-16. The summaries, which are equally applicable to the present office action, were provided as follows:

        "Anritsu, K.K., Japan App. No. 3-45031, Pub. 26 February 1991. The reference discloses a portable telephone handset having information storage means for storing call charge units, the value of which corresponds to the amount of payment made for purchase or rental of the phone. The units are reduced each time a billing signal is received from a base station during a call. The billing signal is received per a timing interval corresponding to a line distance based on an area identification. The handset is deactivated when the units are depleted. The reference mentions that a billing rate table in which rates are based on regions and a clock can be prepared in a portable handset

and that the handset can perform the same billing registration and calculation processes as when billing signals were received from a base station. No implementation of this alternative is described. The reference does not discuss features such as roaming, international calls or other factors considered in the complex billing algorithm of applicant. It is mentioned that the handset can be taken to a 'designated agency' for updating the call charge unit information and recharging the battery. However no interaction with a host processor is disclosed."

"Ortiz et al, Patent No. 5,361,297, issued 1 November 1994, discloses a call supervision system for detecting completion of national and international calls. Additionally disclosed, is an autonomous pay telephone arrangement including a billing system for a mobile telephone for calculating call charges for immediate payment. A CPU control board memory stores billing rates for services to be provided such as local and long distance incoming and outgoing pre-charges and the like for calculating a call charge for use of the phone."

"Hillis, Patent No. 5,303,297, issued 12 April 1994, discloses a dynamic billing system that adapts to the system load in real time. A user making a call receives a rate charge and if acceptable makes the call and if not, waits to place it later when the charge rate may be less."

On the issue of "obviousness," the Patent Office bears the burden of establishing a case of *prima facie* obviousness. *In re Fine*, 837 F.2d 1071, 1074 (Fed.Cir. 1988). To determine whether or not the claimed subject matter can properly be viewed as being "obvious" under 35 U.S.C. § 103, "the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved....Such secondary considerations as commercial success, long felt but unsolved need, failure of others, etc. might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented." *Graham v. John Deere Co.*, 383 U.S. 1, 17-18, 86 S.Ct. 684, 694, 15 L.Ed.2d 545 (1966). Courts have found secondary considerations to be particularly important because they "'guard against slipping into use of hindsight'... and to resist the temptation to read into the prior art the teachings of the invention at issue." *Graham supra*, 383 U.S. at 35-36. Moreover, in order

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to properly combine references for an obviousness determination, there must be a suggestion or motivation in the references to make such a combination. *In re Gordon*, 733 F.2d 900, 902 (Fed.Cir. 1984)("The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification"). With these legal principles in mind, the merits of the obviousness rejections will now be addressed.

(i) Host Processor Coordination Of Accounts

An important distinguishing feature for all of Applicants' pending claims is using a host processor having stored telephone identification information and corresponding operating codes to run a debit telephone system. In Applicants' claimed invention, the system provider is able to keep tight control over a nationwide or worldwide debit telephone system by setting up a host processor at a centralized service center which is capable of being remotely accessed by the debit telephone or its user to make or keep the debit telephone active. This host processor stores identification information (e.g., ESN) about debit telephones in the system to allow the host processor to verify the identity of the debit telephone unit seeking operating code information. Once this identity has been checked and entitlement to operating code information established (e.g., by proving prepayment for requested airtime additions), specific operating codes can be retrieved from the host processor's memory which are appropriate to make or keep that particular telephone active and then those codes can be conveyed to the debit telephone or its user.

None of the cited references even come close to disclosing this sort of host processor coordination. While the Anritsu '031 application states that a disabled portable handset can be reactivated "by paying call charges at a designated agency, which will update the call charge unit information and recharge the battery," there is no teaching in the Anritsu '031 application that this process in any way involves a host processor, much less a host processor which stores identification information for telephones in the system and corresponding operating codes. It is quite reasonable to infer that the "designated agency" is simply a retail counter where the customer hands over cash to an attendant and watches the attendant punch in a series of airtime replenishment numbers into the telephone while the battery is recharging. In contrast to Applicants' invention, where the host processor can be

remotely contacted over the airways, Anritsu's approach is ill-suited for a nationwide or worldwide debit phone system because the "designated agency" may not be easily accessible to the debit telephone user and the distribution of replenishment codes to the "designated agency" is prone to fraud. Moreover, the Anritsu '031 application says nothing about how debit telephones are activated. For example, in contrast to Applicants' invention, there is no suggestion in the Anritsu '031 application that a generic debit telephone can be offered for sale anywhere in the world and then remotely activated in a communication session with the system provider's host processor to, among other things, assign a working phone number (i.e., MIN) appropriate to the user's locale.

Similarly, there is no host processor coordination of a debit telephone system disclosed in the Ortiz patent. First, Applicant finds no teaching in the Ortiz patent of a debit telephone system. As disclosed and claimed in Applicants' invention, each debit telephone in Applicant's system has a debit account, means to decrement that debit account as calls are made and means to lock the phone to prevent further calls when the debit account is exhausted. While Ortiz suggests that there could be a requirement for "payment in advance of call placement" (col. 13, lns. 8-12), that is apparently nothing more than preventing the telephone from making a call until Ortiz's taxi driver has received a cash advance for that telephone call with no suggestion that the telephone be disabled after the telephone charges exceed the advance payment. This interpretation of the Ortiz patent is fully consistent with Ortiz's teaching that "money is collected in cash" because the taxi driver "may never see the rider again" (col. 15, lns. 41-46). By contrast, Applicants' debit telephone system is set up for the continuing and repeated use of the debit telephone by the same user rather than a one time taxi ride. Secondly, while Ortiz discloses that his CPU control board 9 can be connected to a "PC computer" for uploading "bill rates and tariffs" and downloading details of calls made, there is no disclosure that this PC computer is involved in any way in activating the phone, assigning a working MIN or replenishing a drawn down debit account. Similarly, there is no suggestion that this PC computer would have identification information for the phones or operating codes to make or keep a particular phone active. Of course, since Ortiz's PC computer must be "plugged into" Ortiz's CPU control board, this arrangement precludes the type of remote

communications to make and keep debit telephones active which are such a useful part of Applicants' system.

Like the Ortiz patent, the Hillis patent does not involve a debit telephone system. The Hillis patent simply allows a conventional cellular telephone user to be advised of a telephone call's cost before the call is made. The Hillis patent does not even begin to address the problem which Applicants have solved of remotely maintaining control over the activation and replenishment of debit telephones which could be scattered throughout the world. There is simply no teaching in Hillis of using a host processor to store identification information for debit telephones in the system, solicit that identification information during communication sessions with the debit telephones or their users, retrieve operating codes to activate the debit telephone or replenish a drawn down debit telephone account and then communicate such operating codes to the mobile phone unit or its user.

Since none of the cited references disclose the host processor coordination feature of Applicants' invention, either alone or in combination, these references plainly cannot be combined in the manner suggested by the Examiner (or in any other manner) to render Applicants' invention as "obvious" under 35 U.S.C. § 103.

(ii)   Handset Based Billing Algorithm

Another distinguishing feature of the pending claims in Applicants' debit telephone system invention is having a billing algorithm in the handset itself which can classify phone calls into categories, such as local, long distance, roaming and/or international, select a charge rate appropriate for that category, calculate call charges using that charge rate and subtract the calculated charges in real time. While, as explained in the accompanying "Declaration of D. Scott McGregor," these type of call charge categorizations and calculations have been previously done in mainframe computers located at the system provider's switch, Applicants were the first to create a billing algorithm which could both perform these complex billing calculations and be programmed into the handset's limited memory (McGregor Decl., ¶ 6). The initial reaction to this idea in the industry was that it was "impossible" (McGregor Decl., ¶ 6). Nonetheless, Applicants have not only made it possible but, in the process,

spawned a handset based debit telephone industry with over seven million (7,000,000) of such telephones in the marketplace (McGregor Decl., ¶ 6; Spivak Decl., ¶ 3).

Turning now to the cited art, the Anritsu '031 patent application cryptically discloses (in an alternative embodiment) that "a billing rate table in which rates are based on the regions and a clock can be prepared in a portable handset" (page 8). There is no teaching or suggestion in the Anritsu '031 patent application, though, that such a "billing rate table" would, in any way, involve classification into the specific billing rate categories of local, long distance, roaming and/or international. Moreover, unlike the present application, Anritsu fails to even hint to those skilled in the art how an algorithm could be programmed into a cellular telephone handset to differentiate among the categories of local, long distance, roaming and international calls. Indeed, in view of the description of Anritsu's preferred "billing signal" embodiment where the applied charges correspond to "the line distance based on the area identification," what is suggested by Anritsu's alternative embodiment is a rate table akin to the mileage charts commonly found on road maps in which one looks for the intersection of the city "X" row with the city "Y" column to find out the mileage between the two cities and thus, in Anritsu's case, the applicable "line distance" rate. In keeping with the sparseness of its disclosure, the Anritsu '031 patent application fails to even explain how such a mileage chart form of billing rate table could be programmed into the limited memory of a cellular telephone.

Acknowledging that the Anritsu '031 patent application fails to disclose any of the basic categories of local calls, long distance calls, international calls and roaming calls, the Examiner relies upon the Ortiz patent to supply this missing teaching. Yet, while the Ortiz patent mentions use of a billing algorithm with these categories, Ortiz teaches that such a billing algorithm should be programmed into a "cabinet 15" which houses a CPU control board 9 (col. 13, lns. 23-47; Fig. 6). Accepting the conventional wisdom that it was "impossible" to program a complex billing algorithm into the telephone handset itself, Ortiz teaches that the billing algorithm must be housed in a computer which is *separate* from the telephone handset. Since Ortiz teaches away from Applicants' invention of incorporating into the telephone handset itself a billing algorithm which can classify calls into the categories of local, long distance, roaming and/or international, it is improper to try to impute by hindsight the billing algorithm classifications from the Ortiz patent into Anritsu's handset. *See, In re Gordon*, 733

F.2d at 902 ("The mere fact that the prior art could be so modified would not have made the
modification obvious unless the prior art suggested the desirability of the modification").

    (iii)   Secondary Considerations

        As previously noted, evidence of secondary considerations is important, and
often determinative, in any obviousness evaluation. *Graham supra*, 383 U.S. at 35-36. These
secondary considerations include such factors as long felt need, failure of others, skepticism
and commercial success. *Id.* As shown in the accompanying "Declaration of D. Scott
McGregor" and "Declaration of Kenin Spivak," these secondary considerations show strongly
that the invention at hand was not obvious to those working in the art at the time it was made.
As explained in the McGregor Declaration, there was a great need for Applicants' debit
telephone system from the approximately 40% of applicants who are turned down for
conventional cellular telephone service because of poor credit (McGregor Decl., ¶ 4).
Applicants' debit telephone system solved the credit problem by providing for payment in
advance which would be reflected in a replenishable debit account stored within the telephone
itself (McGregor Decl., ¶ 5). Applicant's debit telephone system also solved problems
associated with inaccurate telephone billing in the cellular rental market by creating a billing
algorithm which closely matched the rate at which telephone service is charged with the actual
cost of that telephone service (McGregor Decl., ¶ 6). Further, by coordinating operating codes
in a central host processor which stored a record of debit telephone identification information
for each system user, Applicants' invention gave the system provider a powerful way to
combat fraud and simultaneously operate a nationwide or worldwide system and, ultimately, to
avoid the failure of others (McGregor Decl., ¶ 7).

        At first, those in the art derided Applicants' system as "impossible" (McGregor
Decl., ¶ 6). Nonetheless, when Applicants proved that their system could be a commercial
reality, imitators soon sprung up to copy and profit from Applicants' invention (Spivak Decl.,
¶ 4). Today, there are over seven million (7,000,000) handset based prepaid telephones in users
hands throughout the world operating under the principles of Applicants' invention (Spivak
Decl., ¶ 3). While one can now use hindsight to try to cut and paste together the features of

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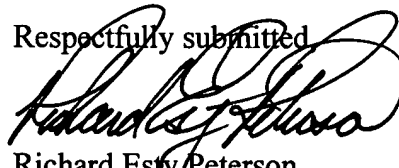Application No.: 08/749,721
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Applicants' invention from disparate prior art references, the evidence shows that, at the time Applicant's invention was made, the invention was not obvious in the least.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at (650) 557-5708.

Respectfully submitted,

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APPENDIX

1.   In a debit phone system with a system provider having a host processor that maintains accounts for use of mobile phone units, a mobile phone unit with internal accounting for use in a phone network wherein the mobile phone unit is a unitary hand-held device that internally calculates call charges and decrements call charges from a debit account, the mobile phone unit comprising:

communication means in the mobile phone unit for wireless communication in the phone network;

internal processing means in the mobile phone unit including a processor, a clock and memory for processing calls and call charges;

program means retained in the memory of the mobile phone unit including rate data and a complex billing algorithm with a multiple factor accounting protocol for classifying calls according to the basic categories of local calls, long distance calls, international calls and roaming calls, applying a call rate according to category, and calculating call charges as calls are made, the program means further including internal accounting means for generating an internal debit account in the phone unit, wherein the phone unit has means for communicating with the system provider and adding an authorized amount to the debit account;

wherein the mobile phone unit internally calculates call charges and decrements the calculated call charges from the amount in the debit account in the mobile phone unit as calls are made and wherein the mobile phone unit includes phone unit identification means for verification by the system provider using the host processor that a phone use account amount addable to the debit account of the identified phone unit has been prepaid; and

locking means for preventing calls from the phone unit when the amount in the debit account is exhausted.

2.   The mobile phone unit of claim 1 wherein the program means further includes means for storing call charges as record data in the memory.

3.   The mobile phone unit of claim 2 wherein the mobile phone unit has means for a communication session being initiated by the host processor at a time controlled

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by the system provider and communicating the record data of stored call charges from the mobile phone unit to the host processor of the system provider.

      4.   The mobile phone unit of claim 1 wherein the mobile phone unit has means for receiving an increase in the amount of the debit account in the mobile phone unit during a communication session with the host processor.

      5.   The mobile phone unit of claim 4 wherein the mobile phone unit has an RF transceiver and the communication session is established over the airways by RF signals.

      6.   The mobile phone system of claim 1 wherein the mobile phone unit has control means for deactivating the mobile phone unit when the debit account is exhausted.

      7.   The mobile phone system of claim 6 wherein the mobile phone unit has paging means for establishing a communication session with the host processor when the phone unit is deactivated.

      8.   The mobile phone unit of claim 1 wherein the mobile phone unit has means for establishing a communication session with a transaction station and upon verification of a set payment account amount by the transaction station increasing the amount of the debit account in the mobile phone unit.

      9.   The mobile phone unit of claim 1 wherein the mobile phone unit has security means for securely receiving an account amount to be added to the debit account in the mobile phone unit.

      10.   The mobile phone unit of claim 9 wherein the security means includes code means for receiving encrypted account communications and decrypting the account communications.

      11.   The mobile phone unit of claim 8 wherein a transaction station has means for communicating with a system user and with the mobile phone unit of the system user and verifying the authenticity of a transaction setting an account amount added to the debit account of the mobile phone unit.

      12.   The mobile phone unit of claim 11 wherein the mobile phone unit includes means for direct electronic coupling of the mobile phone unit with the transaction station.

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14.   The mobile phone unit of claim 1 wherein the mobile phone unit includes a visual display and the program means generates a visual display of the current amount of the debit account in the visual display.

16.   The mobile phone unit of claim 1 wherein the rate data comprises a rate table under control of the system provider and secure from a mobile phone unit user.

18.   The mobile phone unit of claim 1 wherein the multiple factor accounting protocol includes code means for factoring in the roaming charges based on the location of the mobile phone unit in a multi-zone communication network.

19.   The mobile phone unit of claim 1 wherein the multiple factor accounting protocol includes code means for factoring in the roaming charges based on the location of the mobile phone unit in a multi-zone communication network when called.

20.   The mobile phone unit of claim 1 wherein the multiple factor accounting protocol includes code means for factoring in long distance charges based on a location of a party being called.

21.   The mobile phone unit of claim 1 wherein the multiple factor accounting protocol includes code means for factoring in call surcharges and deductions based on a data content of a call.

22.   The mobile phone unit of claim 1 wherein the multiple factor accounting protocol includes code means for classifying calls for calculating call charges based on a telephone number called from the mobile phone unit.

23.   the mobile phone unit of claim 1 wherein the clock of the mobile phone unit is a real time clock and the multiple factor accounting protocol includes code means for calculating call charges based on the time of day of calls on the mobile phone unit.

24.   The mobile phone unit of claim 23 wherein the real time clock provides time and date, and the phone unit has circuit means for deactivating the phone unit at a predetermined time and date.

25.   The mobile phone unit of claim 12 in combination with a transaction station.

26.   The mobile phone unit of claim 25, wherein the transaction station is a stand alone unit electronically coupled to the phone unit.

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27.   The mobile unit of claim 1 in combination with the host processor wherein the host processor has means for remote activation of the mobile phone unit.

28.   The mobile phone unit of claim 27 wherein the host processor has means for remote programming of the mobile phone unit.

29.   A debit telephone system comprising:

a plurality of cordless hand-held mobile telephone units, wherein each of said hand-held mobile telephone units includes a processor, memory and internal accounting software,

said internal accounting software including a debit account with a representation of prepaid funds, a plurality of charge rates and a billing algorithm which classifies each telephone call into one of a plurality of billing categories, selects a charge rate corresponding to that billing category, calculates an appropriate charge for that telephone call in real time by using said selected charge rate and subtracts this appropriate charge from said debit account;

a system provider having a host processor for coordination of mobile phone accounts, wherein said host processor stores mobile telephone unit information including mobile telephone unit identification information, operating codes needed for mobile telephone unit activation and operating codes needed for replenishing mobile telephone unit debit accounts whereby, upon receipt of mobile telephone unit identification information from a particular mobile telephone unit or its user, said host processor ascertains the operating codes needed to activate that particular mobile telephone unit or to replenish its debit account, whereupon said operating codes are communicated to the particular mobile phone unit or its user.

30.   The debit telephone system of claim 29 wherein said billing categories include billing categories for local calls and long distance call.

31.   The debit telephone system of claim 29 wherein said billing categories include billing categories for roaming calls.

32.   The debit telephone system of claim 29 wherein said billing categories include billing categories for local calls, long distance calls, roaming calls and international calls.

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33.   The debit telephone system of claim 29 wherein said billing categories include billing categories for calls placed within the United States and calls made internationally.

34.   The debit telephone system of claim 29 wherein the charge rates corresponding of each billing category are different.

35.   the debit telephone system of claim 29 wherein the charge rates corresponding to different billing categories may be the same.

36.   The debit telephone system of claim 29 wherein the host processor stored operating codes are communicated to the user by a system provider operator who has access to said host processor.

37.   The debit telephone system of claim 36 wherein the user enters the operating codes into the mobile telephone unit by manually punching keys on the mobile telephone unit.

38.   The debit telephone system of claim 29 wherein the host processor stored operating codes are communicated over the airwaves directly from the host processor to the mobile telephone unit.

39.   The debit telephone system of claim 29 wherein calls are prevented from being made when the debit account has a zero balance.

40.   The debit telephone system of claim 29 further including a visual display of the debit account balance.

41.   The debit telephone system of claim 29 wherein said mobile telephone unit further includes a real time clock chip.

42.   A debit telephone system comprising:

a plurality of cordless hand-held mobile telephone units, wherein each of said hand-held mobile telephone units includes a processor, memory and internal accounting software,

said internal accounting software including a debit account with a representation of prepaid funds, a plurality of charge rates and a billing algorithm which can classify each telephone call into one of a plurality of billing categories including categories for local calls, long distance calls and roaming calls, select a charge rate corresponding to that billing

category, calculate an appropriate charge for that telephone call in real time by using said selected charge rate and subtract this appropriate charge from said debit account;

a system provider having a host processor for coordination of mobile phone accounts, wherein said host processor stores mobile telephone unit information including mobile telephone unit identification information, operating codes needed for mobile telephone unit activation and operating codes needed for replenishing mobile telephone unit debit accounts whereby, upon receipt of mobile telephone unit identification information from a particular mobile telephone unit or its user, said host processor ascertains the operating codes needed to activate that particular mobile telephone unit or to replenish its debit account, whereupon said operating codes are the communicated to the particular mobile phone unit or its user.

43.   The debit telephone system of claim 42 wherein the host processor generated operating codes are communicated to the user by a system provider operator who has access to said host processor.

44.   The debit telephone system of claim 43 wherein the user enters the operating codes into the mobile phone unit by manually punching keys on the mobile phone unit.

45.   The debit telephone system of claim 42 wherein the host processor stored operating codes are communicated over the airwaves directly from the host processor to the mobile telephone unit.

46.   The debit telephone system of claim 42 wherein calls will be prevented from being made when the debit account has a zero balance.

47.   The debit telephone system of claim 42 further including a visual display of the debit account balance.

48.   A debit telephone system comprising:

a plurality of cordless hand-held mobile telephone units, wherein each of said hand-held mobile telephone units includes a processor, memory and internal accounting software,

said internal accounting software including a debit account with a representation of prepaid funds, a plurality of charge rates and a billing algorithm which can classify each

telephone call into one of a plurality of billing categories, select a charge rate corresponding to that billing category, calculate an appropriate charge for that telephone call in real time by using said selected charge rate and subtract this appropriate charge from said debit account;

a system provider having a host processor for coordination of mobile phone accounts, said host processor stores mobile telephone unit information including mobile telephone unit identification information, assignable telephone numbers, operating codes needed for mobile telephone unit activation and operating codes needed for replenishing mobile telephone unit debit accounts whereby, upon receipt of mobile telephone unit identification information from a particular mobile telephone unit or its user and, at the time of activation, information identifying the user's locale, said host processor ascertains the operating codes needed to activate that particular mobile telephone unit or to replenish its debit account and, at the time of activation, ascertains an assignable telephone number are communicated to the particular mobile phone unit or its user.

49.   A debit telephone system comprising:

a plurality of cordless hand-held mobile telephone units, wherein each of said hand-held mobile telephone units includes a processor, memory and internal. Accounting software,

said internal accounting software including a debit account with a representation of prepaid funds, a plurality of charge rates and a billing algorithm which can classify each telephone call into one of a plurality of billing categories including categories for local, long distance and roaming telephone calls, select a charge rate corresponding to that billing category, calculate an appropriate charge for that telephone call in real time by using said selected charge rate and subtract this appropriate charge from said debit account;

a system provider having a host processor for coordination of mobile phone accounts, said host processor stores mobile telephone unit information including mobile telephone unit identification information, assignable telephone numbers, operating codes needed for mobile telephone unit activation and operating codes needed for replenishing mobile telephone unit debit accounts whereby, upon receipt of mobile telephone unit identification information from a particular mobile telephone unit or its user and, at the time of activation, information identifying the user's locale, said host processor ascertains the

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operating codes needed to activate that particular mobile telephone unit or to replenish its debit account and, at the time of activation, ascertains an assignable telephone number which corresponds to the mobile telephone user's locale, whereupon said operating codes and assignable telephone number are then communicated to the particular mobile phone unit or its user.

50.   Software for a debit telephone system comprising:

internal accounting software for a cordless hand-held mobile telephone unit to establish a debit account with a representation of prepaid funds, store a plurality of charge rates and create a billing algorithm which can classify each telephone call into one of a plurality of billing categories, select a charge rate corresponding to that billing category, calculate an appropriate charge for that telephone call in real time by using said selected charge rate and subtract this appropriate charge from said debit account; and

software for a system provider's host processor which stores mobile telephone unit identification information, stores operating codes needed for mobile phone unit activation and stores operating codes needed for replenishing mobile phone unit debit accounts whereby, upon receipt of mobile telephone unit identification information from a particular mobile phone unit or its user, said host processor software is capable of ascertaining the operating codes needed to activate that particular mobile phone unit or to replenish its debit account.

51.   The debit telephone system software of claim 50 wherein the internal accounting software for said cordless handheld mobile telephone can ascertain whether a telephone call being dialed belongs to a long distance call category.

52.   The debit telephone system software of claim 50 wherein the internal accounting software for said cordless handheld mobile telephone can ascertain whether a telephone call being dialed belongs to a local call category.

53.   The debit telephone system software of claim 50 wherein the internal accounting software for said cordless handheld mobile telephone can ascertain whether a telephone call being dialed belongs to a roaming call category.

54.   The debit telephone system software of claim 50 wherein the internal accounting software for said cordless handheld mobile telephone can ascertain whether a telephone call being dialed belongs to a international call category.

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55.   The debit telephone system software of claim 50 wherein the internal accounting software for said cordless handheld mobile telephone will prevent further telephone calls from being made if there are no remaining funds in the debit account.

56.   Software for a debit telephone system comprising:

internal accounting software for a cordless hand-held mobile telephone unit to establish a debit account with a representation of prepaid funds, store a plurality of charge rates and create a billing algorithm which can classify each telephone call into one of a plurality of billing categories including categories for local, long distance and roaming telephone calls, select a charge rate corresponding to that billing category, calculate an appropriate charge for that telephone call in real time by using said selected charge rate and subtract this appropriate charge from said debit account; and

software for a system provider's host processor which stores mobile telephone unit identification information, stores assignable telephone numbers, stores operating codes needed for mobile phone unit activation and stores operating codes needed for replenishing mobile phone unit debit accounts whereby, upon receipt of mobile phone unit identification information from a particular mobile phone unit or its user, said host processor software is capable of ascertaining the operating codes needed to activate that particular mobile phone unit, to replenish its debit account or to select an assignable telephone number corresponding to the user's locale.

57.   A mobile debit telephone unit operating which a debit telephone system comprising:

a transmitter, a receiver, a processor, memory and internal accounting software wherein said internal accounting software includes a debit account with a representation of prepaid funds, a plurality of charge rates, memory allocation for a phone number to be assigned at the time of activation and a billing algorithm which can classify each telephone call into one of a plurality of billing categories, select a charge rate corresponding to that billing category, calculate an appropriate charge for that telephone call in real time by using said selected charge rate and subtract this appropriate charge from said debit account.

58.   The mobile debit telephone unit of claim 57 wherein said internal accounting software prevents calls from being made when the debit account has a zero balance.

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59.   The mobile debit telephone unit of claim 57 wherein said internal accounting software has the ability to accept and implement operating codes generated by a system provider host processor.

60.   The mobile debit telephone of claim 57 wherein said billing categories include billing categories for local calls, long distance calls and roaming calls.

61.   A mobile debit telephone unit operating within a debit telephone system comprising:

a transmitter, a receiver, a processor, memory and internal accounting software, wherein said internal accounting software includes a debit account with a representation of prepaid funds, a plurality of charge rates, memory allocation for a phone number to be assigned at the time of activation, coding to allow the telephone unit to accept and implement operating codes generated by a system provider host processor and a billing algorithm which can classify each telephone call into one of a plurality of billing categories including billing categories for local calls, long distance calls and roaming calls, select a charge rate corresponding to that billing category, calculate an appropriate charge for that telephone call in real time by using said selected charge rate and subtract this appropriate charge from said debit account.

62.   The mobile debit telephone of claim 61 wherein said operating codes are encrypted.

63.   A method for activating a mobile debit telephone unit within a debit telephone system run by a system provider comprising:

storing mobile debit telephone identification information, mobile debit telephone operating codes and assignable telephone numbers in a system provider's host processor;

having the mobile debit telephone or its user initiate communication with the system provider to activate said mobile debit telephone unit including providing to said system provider with information about the identity of said mobile debit telephone unit and the location of its user;

inputting said identity and location information into the system provider's host processor;

retrieving from said system provider's host processor operating codes to activate said debit telephone, operating codes to establish a debit account balance and an assignable telephone number corresponding to the user location information;

communicating said operating codes and assignable telephone number to said mobile telephone unit or its user;

inputting said operating codes and assignable telephone number into said mobile debit telephone unit to activate said mobile telephone unit, establish a debit account balance and establish a working telephone number for said mobile debit telephone unit.

64.   The activation method of claim 63 wherein the host processor stored operating codes and assignable telephone number are communicated to the user by a system provider operator who has access to said host processor.

65.   The activation method of claim 64 wherein the user enters the operating codes into the mobile debit telephone unit by manually punching keys on the mobile debit telephone unit.

66.   The activation method of claim 63 wherein the host processor stored operating codes are communicated over the airwaves directly from the host processor to the mobile debit telephone unit.

67.   The activation method of claim 63 wherein said operating codes are communicated to said mobile debit telephone unit or its user in encrypted form.

68.   The activation method of claim 63 wherein said mobile debit telephone unit identity information includes the telephone's electronic serial number.

69.   The activation of claim 63 further comprising having the host processor use the location information provided by the user to select home SIDs for the mobile debit telephone unit and those communicate those home SIDs to the mobile debit telephone unit or its user to allow the mobile debit telephone unit to determine whether it is roaming.

70.   A method for replenishing a mobile debit telephone unit debit account within a debit telephone system run by a system provider comprising:

storing operating codes within a system provider's host processor which are capable of replenishing a mobile telephone unit's debit account;

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having the mobile telephone user pay to have the mobile telephone unit debit account replenished in a designated amount and providing said user with verification of such payment;

having the mobile debit telephone or its user initiate communication with the system provider to replenish the mobile telephone unit debit account including providing to said system provider information about the identity of said mobile debit telephone unit and verification of payment;

inputting said identity and payment verification information into the system provider's host processor;

retrieving from said system provider's host processor operating codes applicable only to the particular mobile debit telephone unit identified in order to replenish that telephone' debit account in the designated amount;

communicating said operating codes to said mobile telephone unit or its user; and

inputting said operating codes into said mobile debit telephone unit to replenish its debit account.

71.   The debit account replenishment method of claim 70 wherein the host processor stored operating codes are communicated to the user by a system provider operator who has access to said host processor.

72.   The debit account replenishment method of claim 71 wherein the user enters the operating codes into the mobile debit telephone unit by manually punching keys on the mobile telephone unit.

73.   The debit account replenishment method of claim 70 wherein the host processor stored operating codes are communicated over the airwaves directly from the host processor to the mobile debit telephone unit.

74.   The debit account replenishment method of claim 70 wherein said operating codes are communicated to said mobile telephone unit or its user in encrypted form.

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75.   The debit account replenishment method of claim 70 wherein said mobile debit telephone unit identity information includes the telephone's electronic serial number.

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